

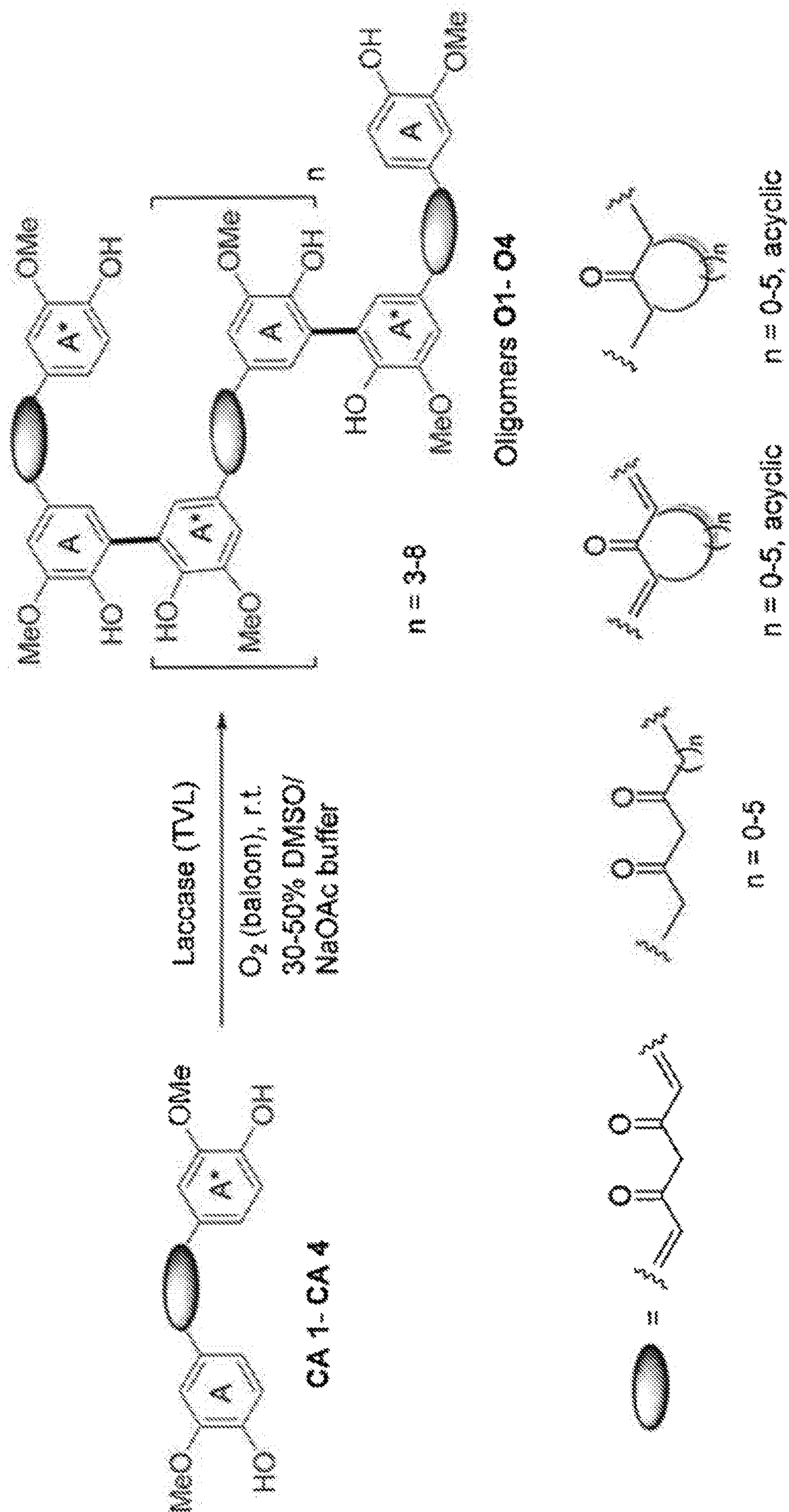


Figure 1

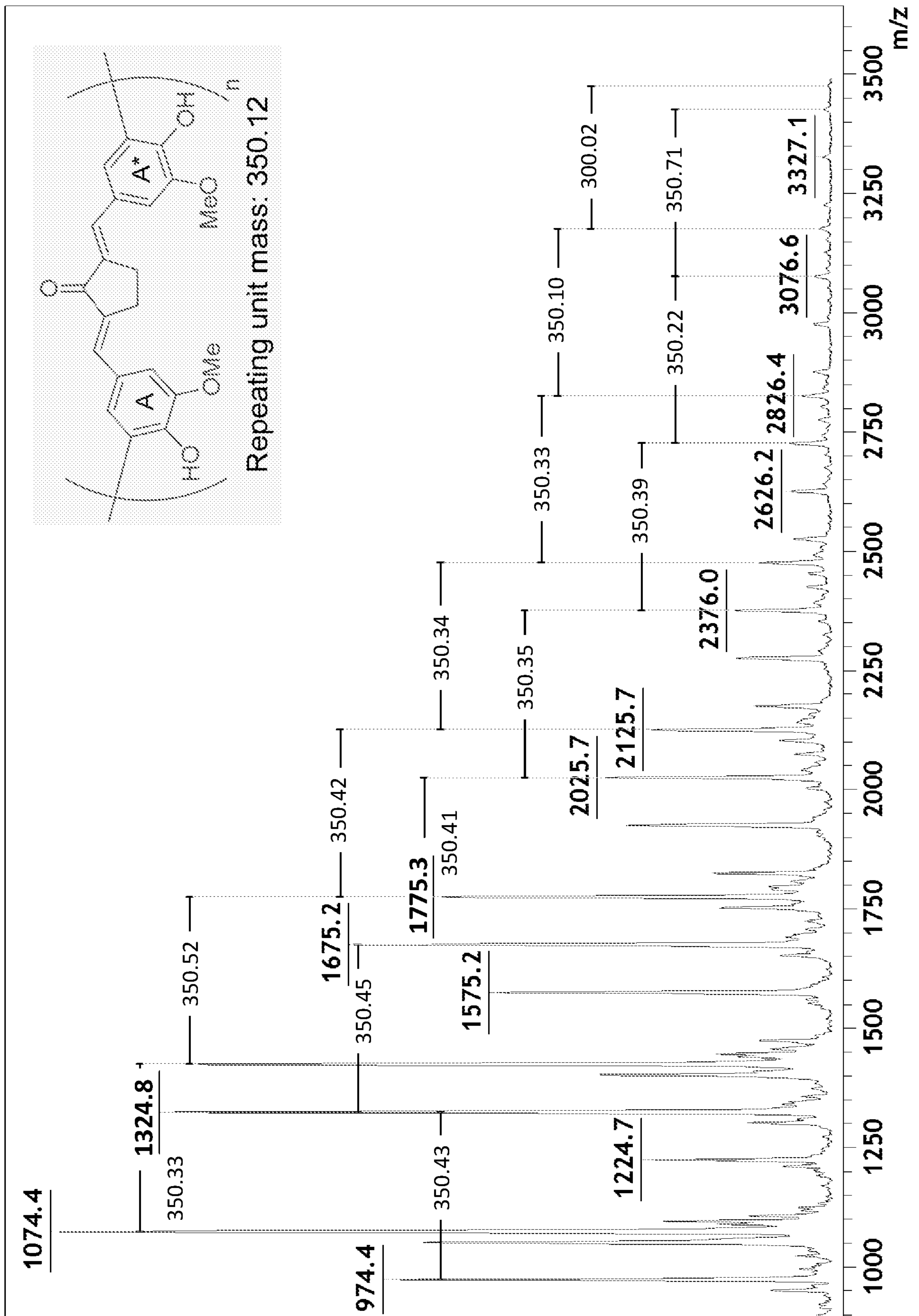


Figure 2

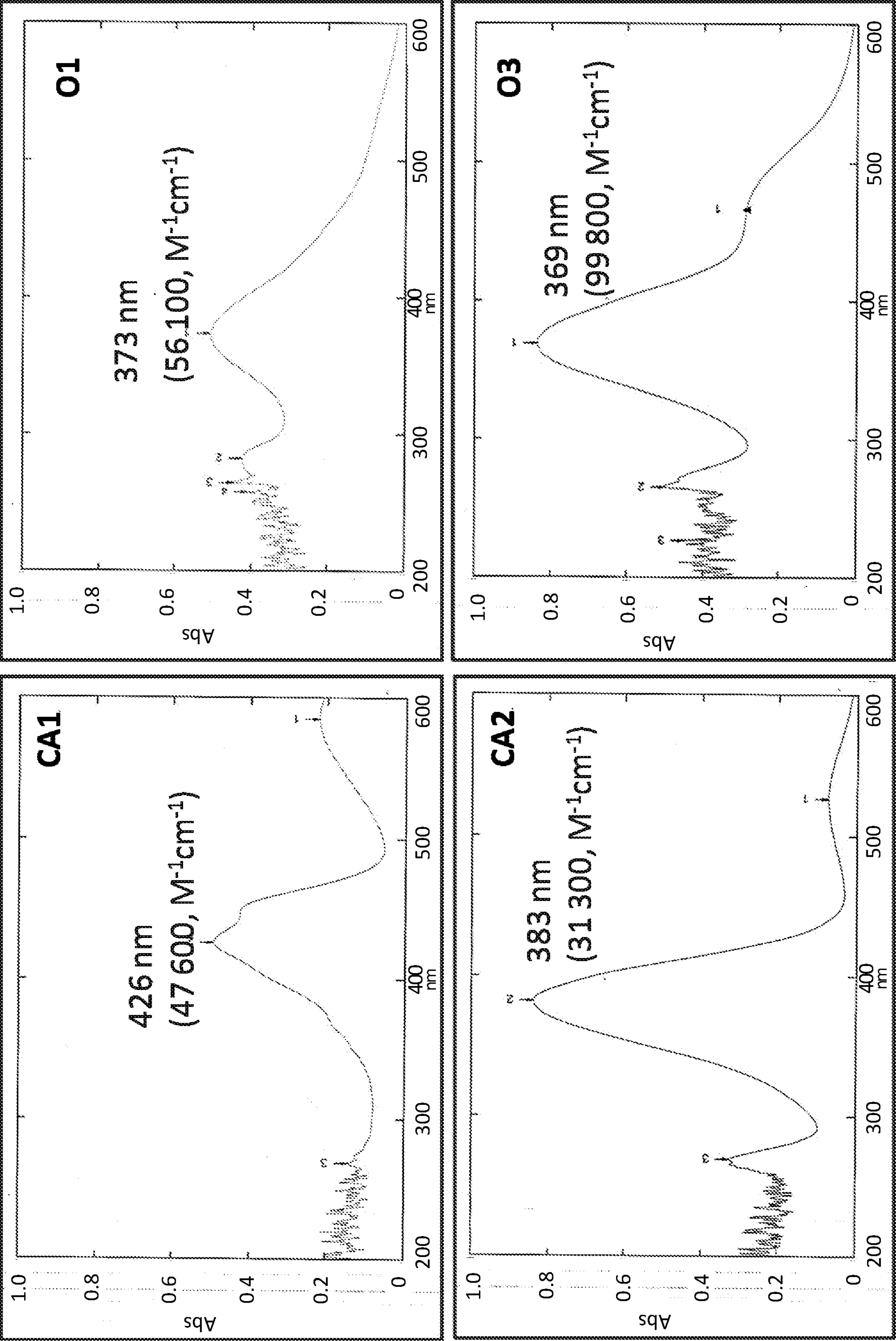
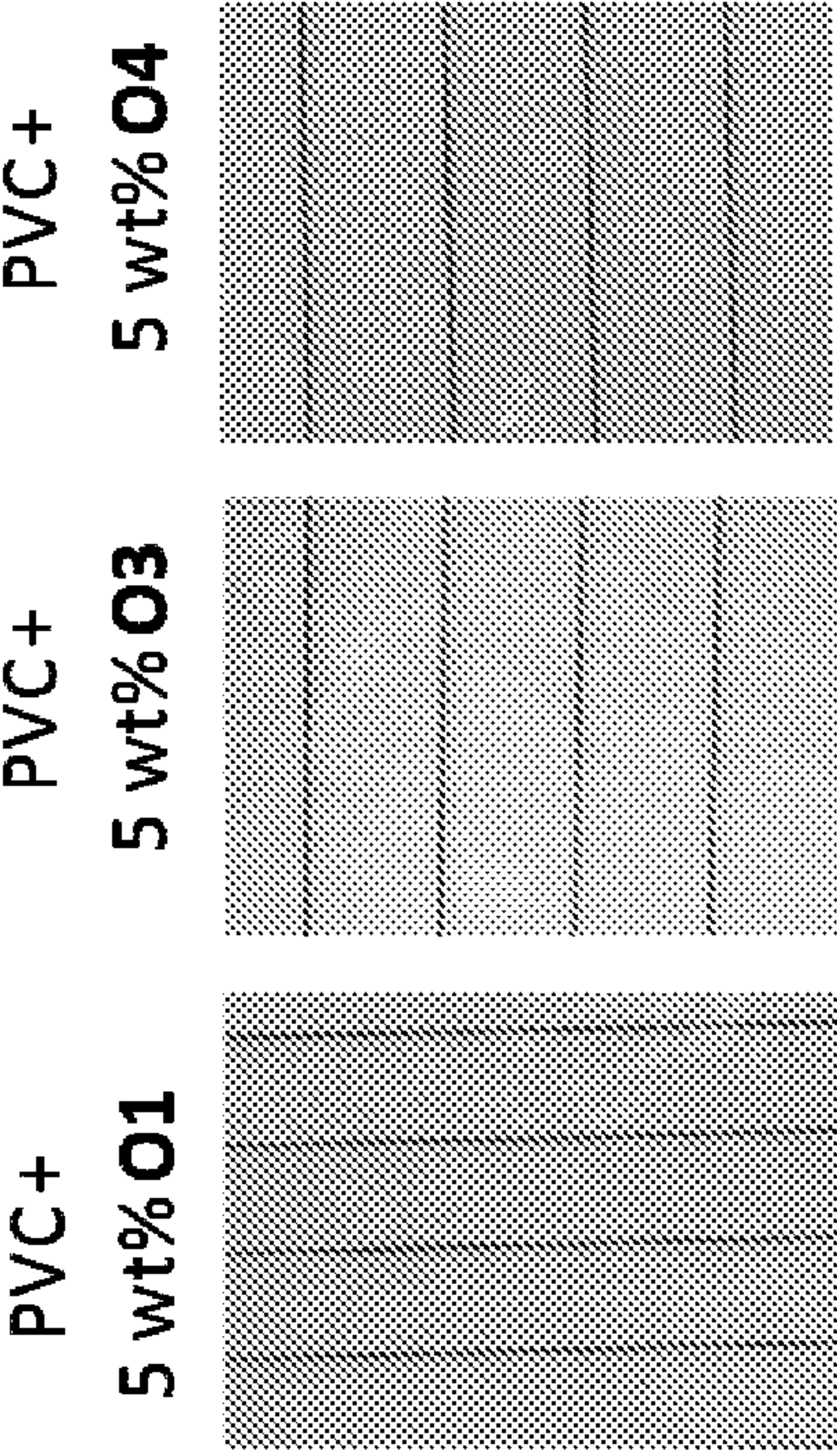


Figure 3

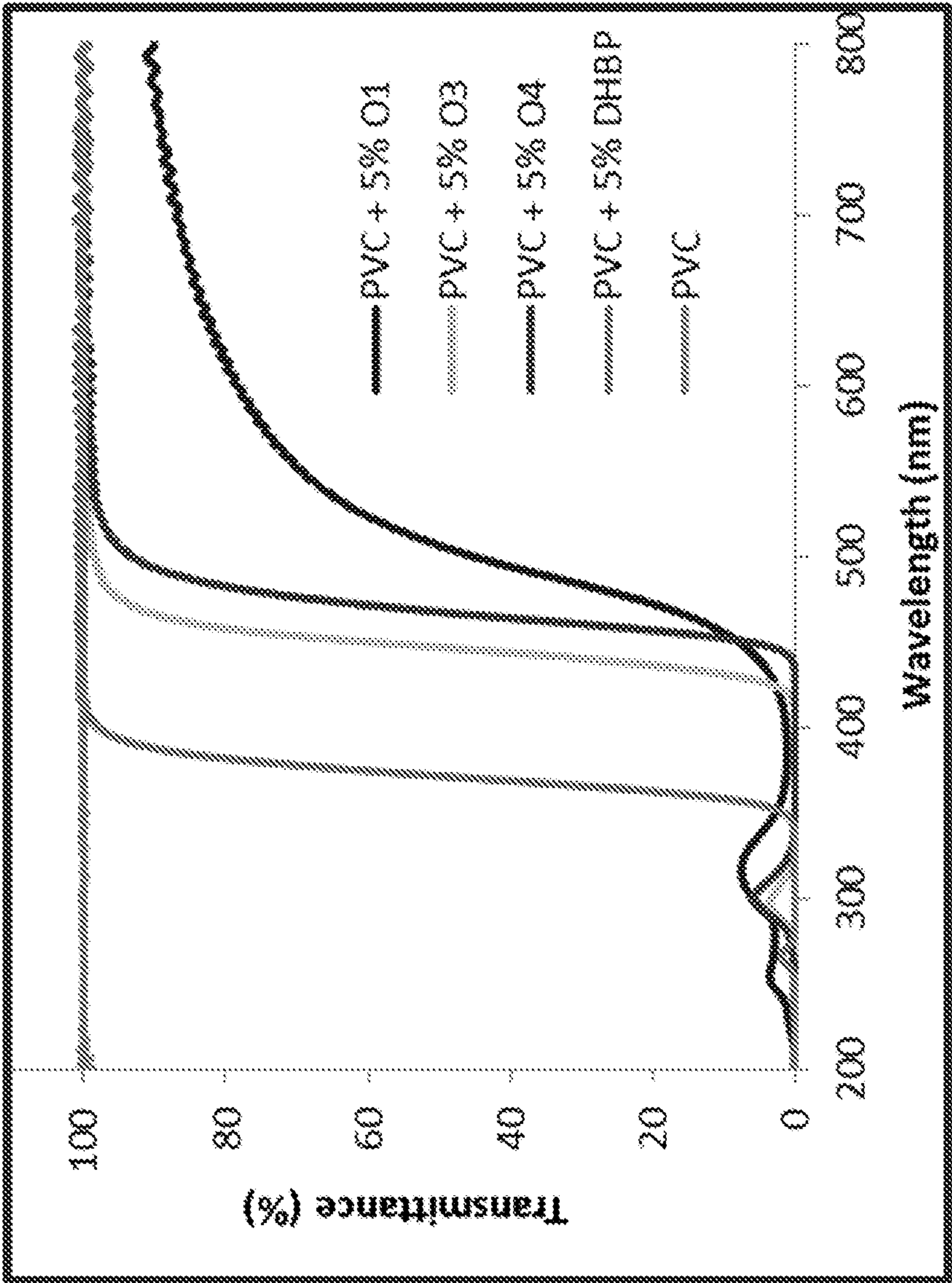


(A)

Oligomers
O1-O4

+ PVC

Solvent casting
method



(B)

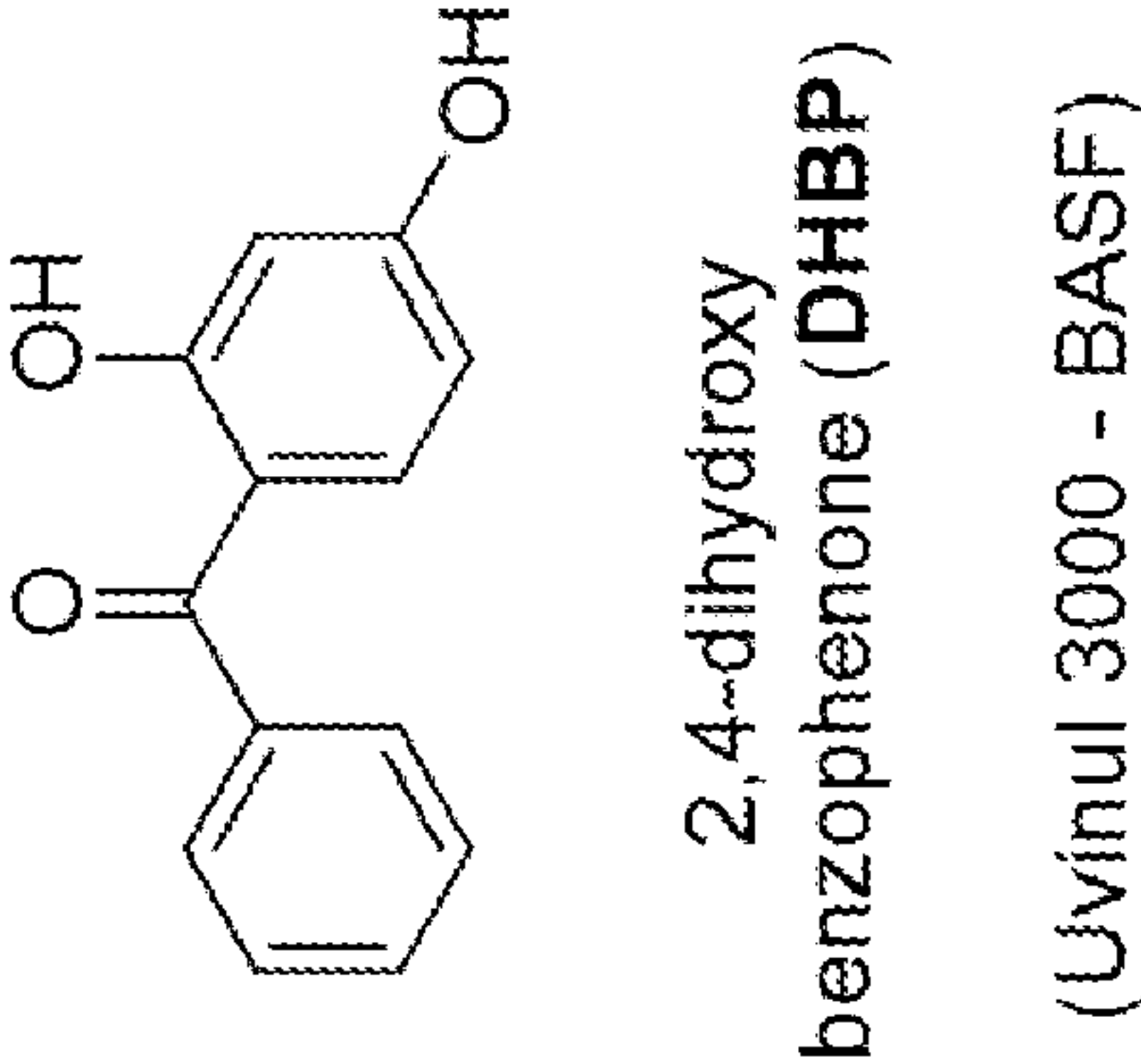


Figure 4

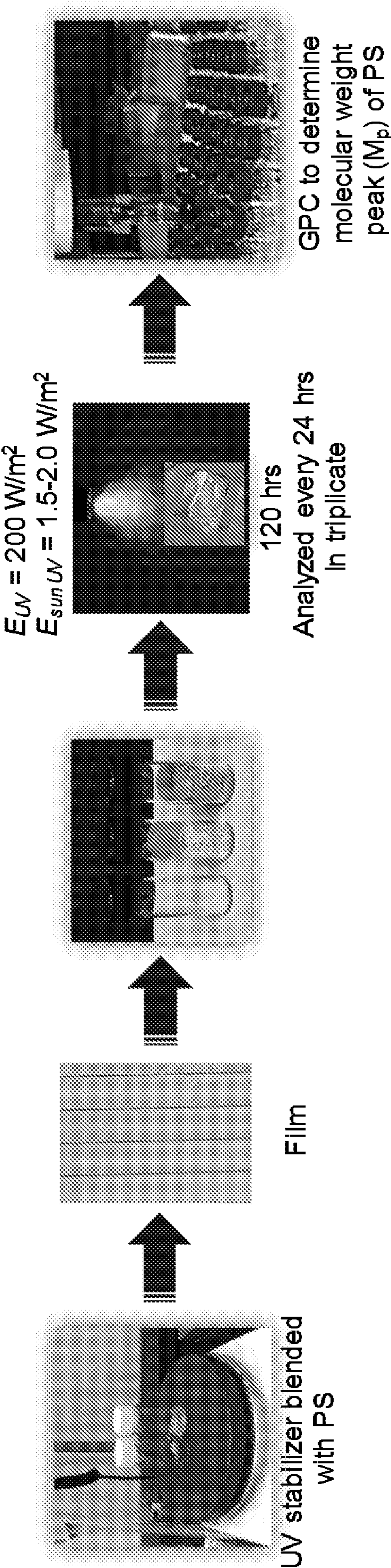


Figure 5

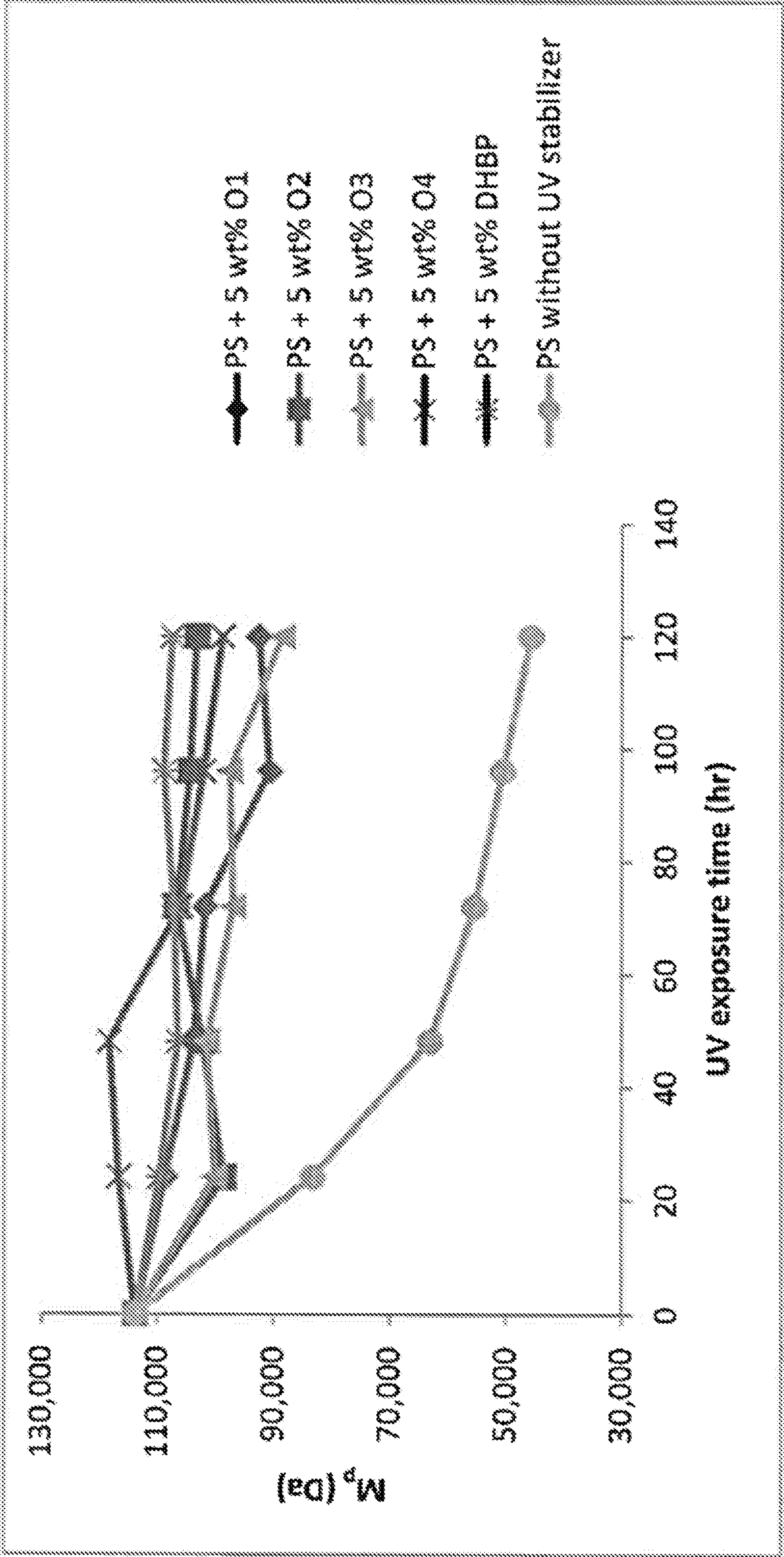
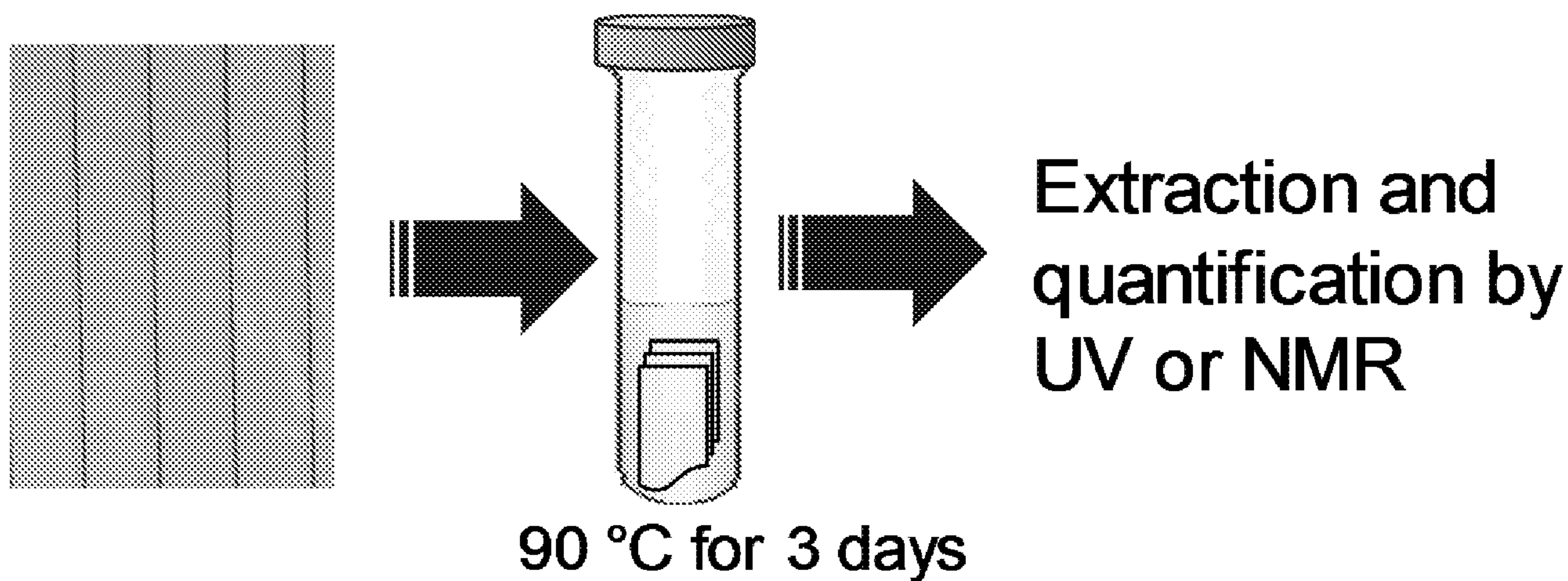
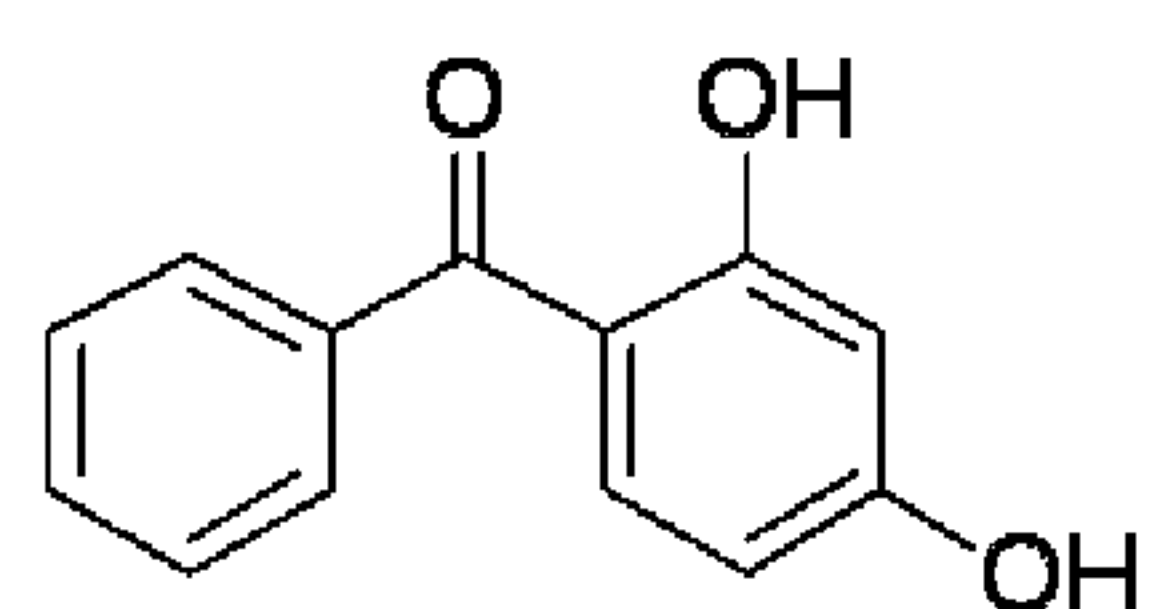


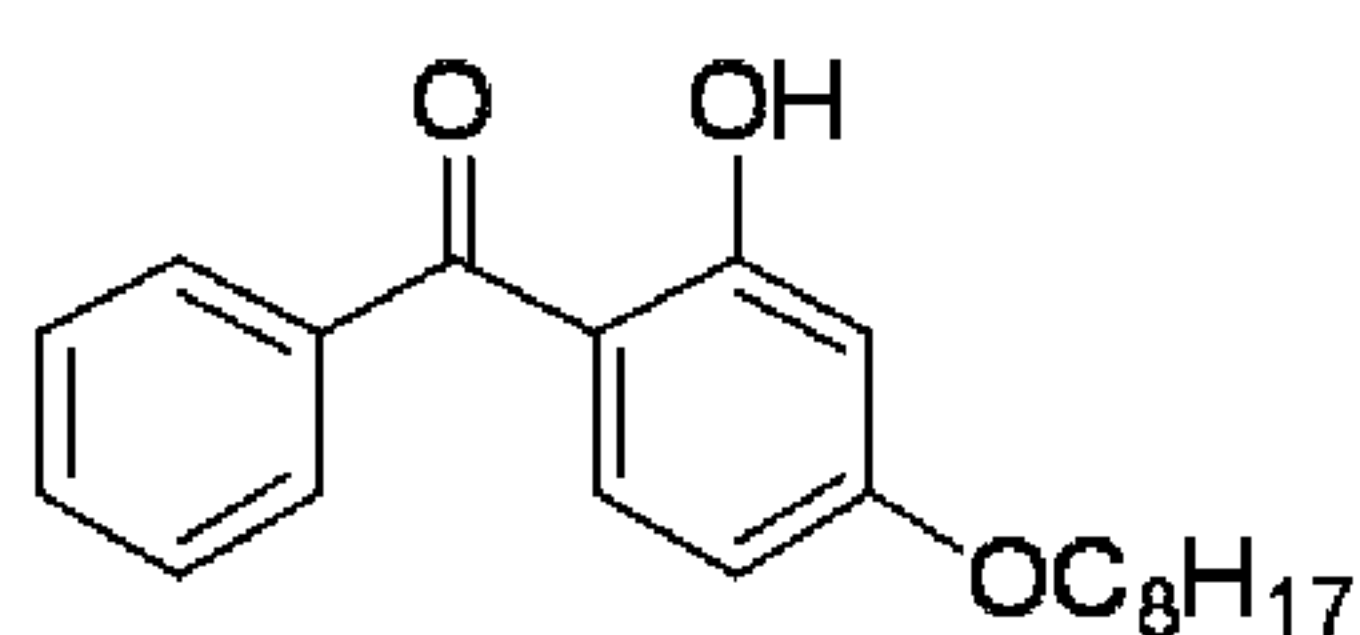
Figure 6



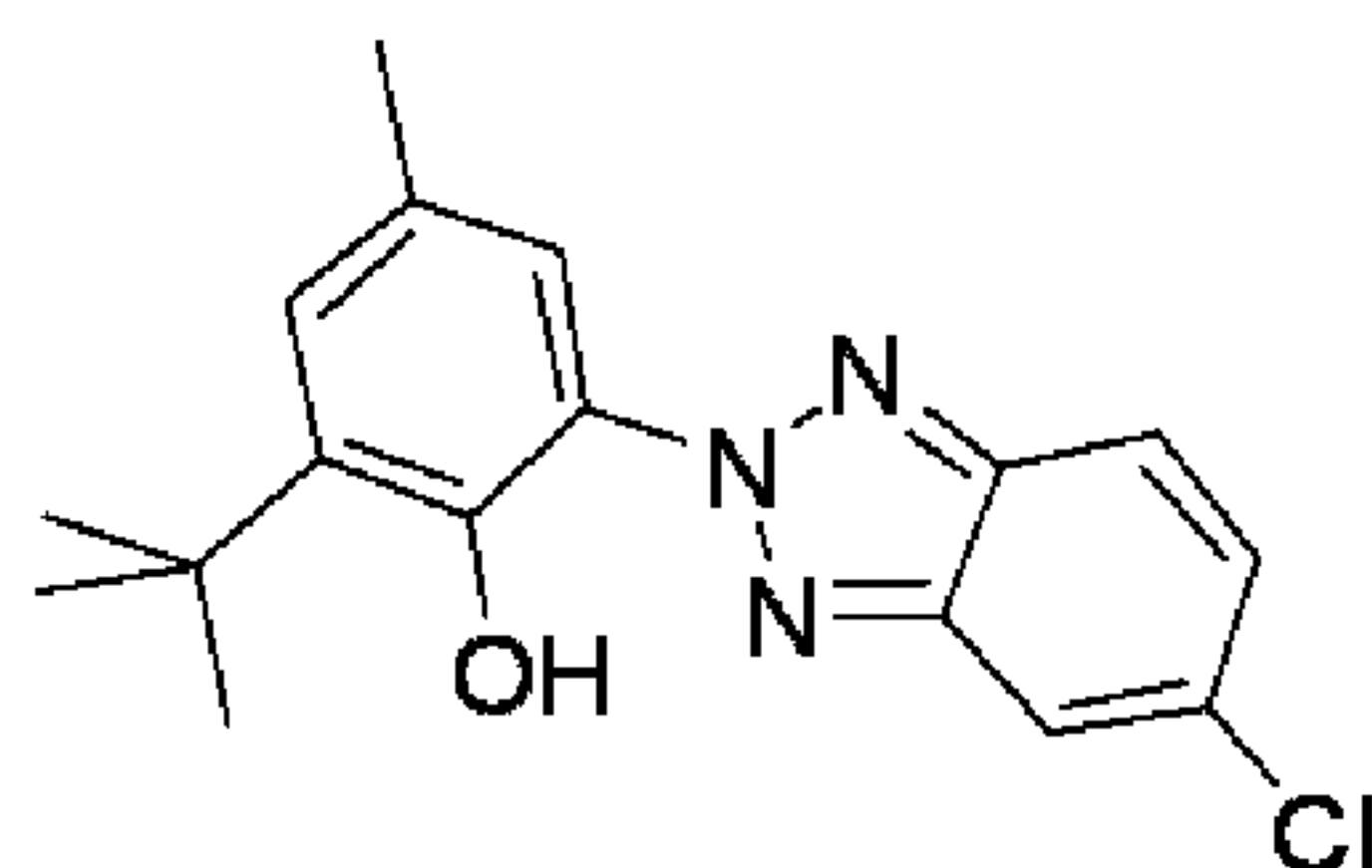
500 mg UV stabilizer embedded
PS in 10 mL of food simulant



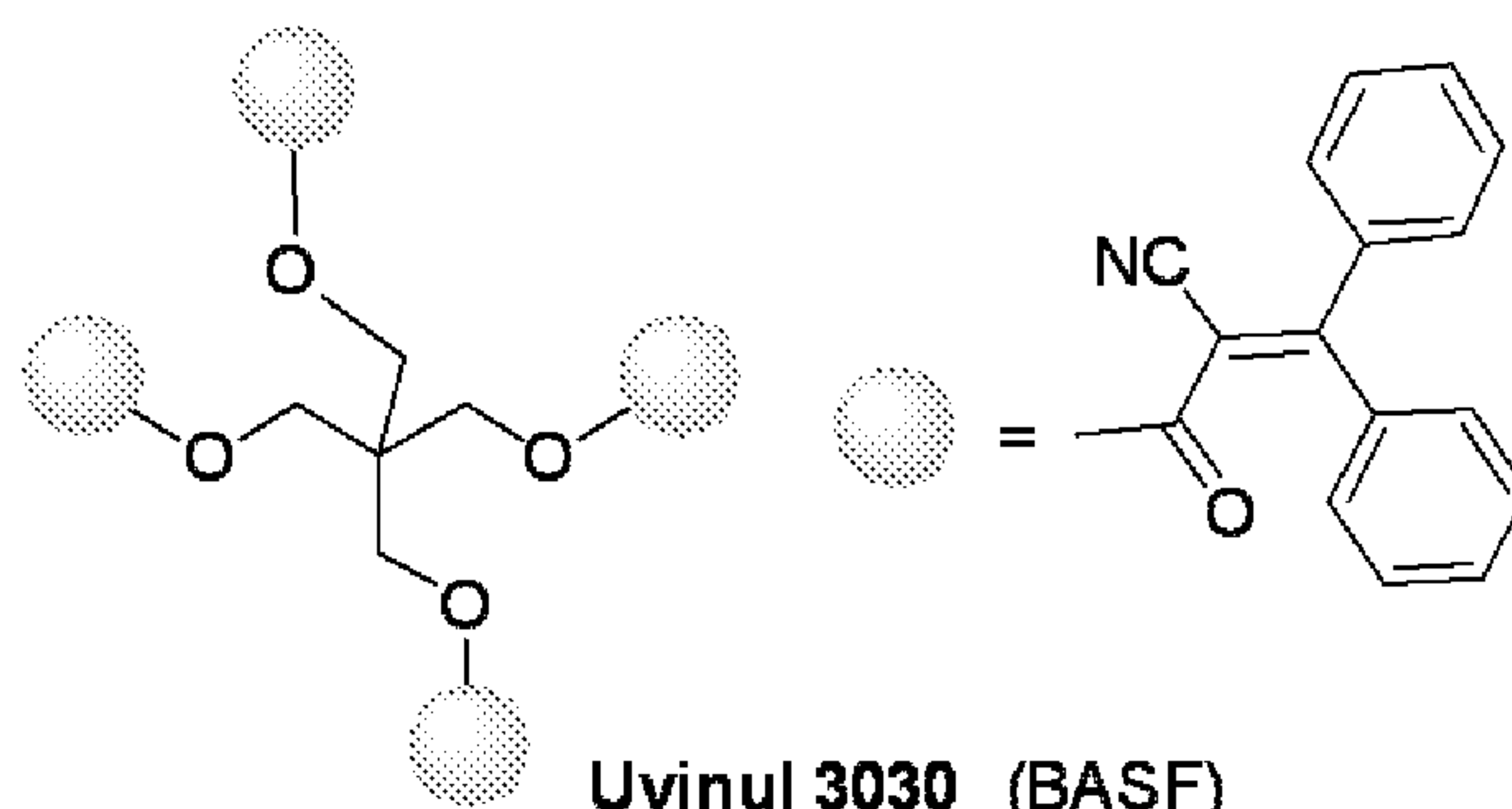
DHBP
Uvinul 3000 (BASF)



DHOBP
Uvinul 3008 (BASF)



BTAC



Uvinul 3030 (BASF)

Figure 7

Leaching studies for O1 embedded PS film

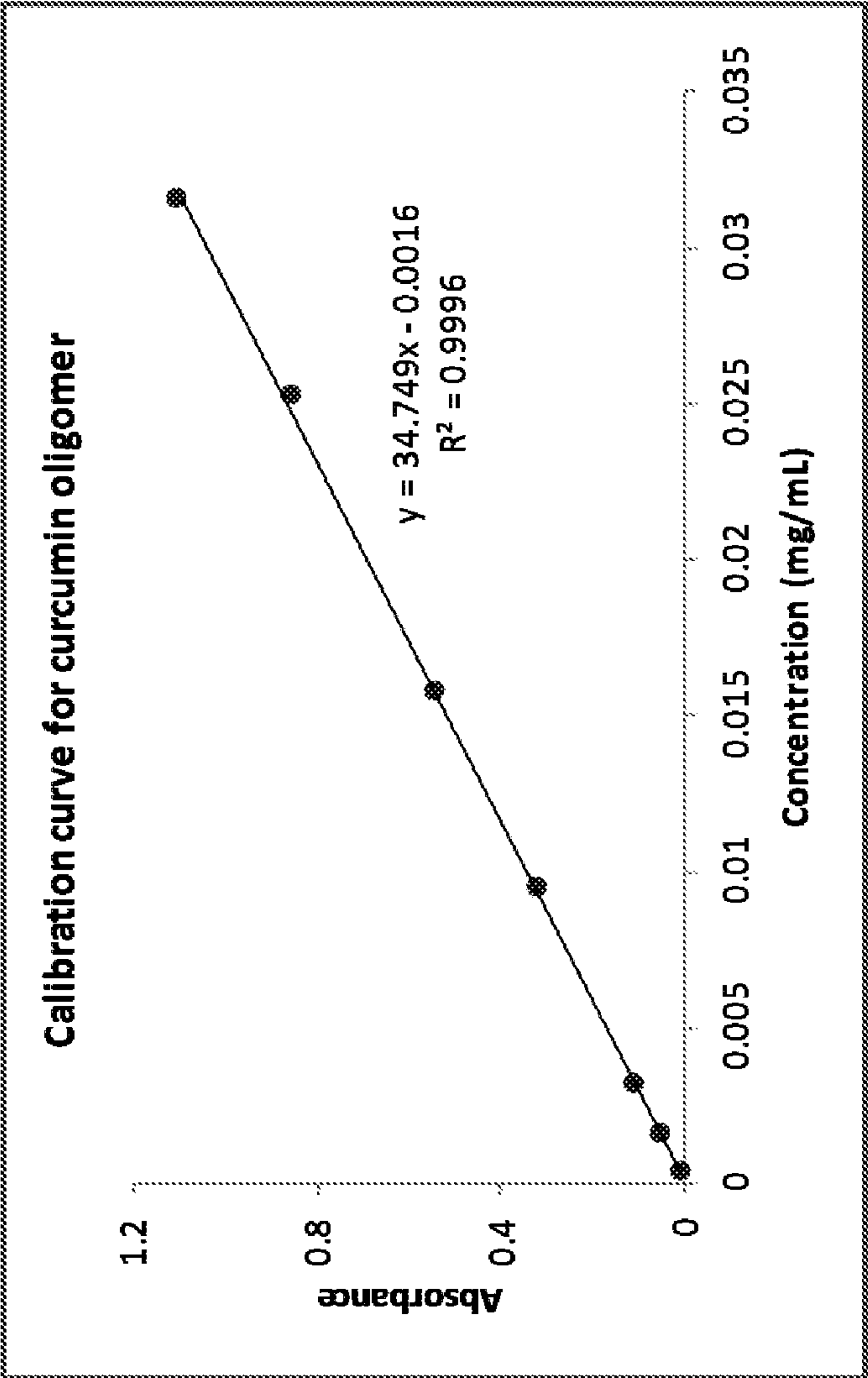
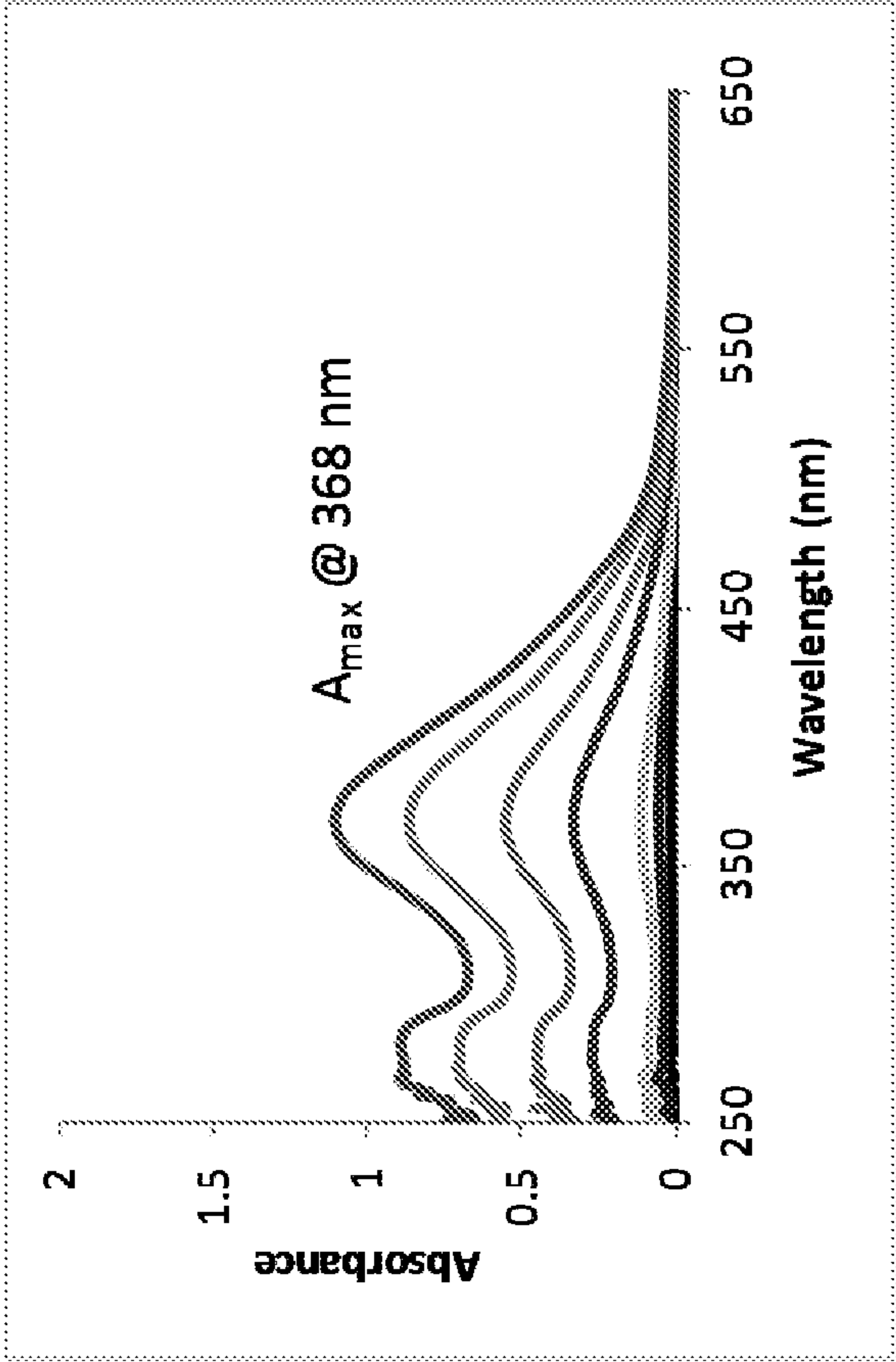


Figure 8



Entry	% leaching in			
	H ₂ O	15% EtOH	3% AcOH	95% EtOH
1	0.1	0.2	0.0	20.1
2	0.0	0.2	0.0	15.2
3	0.0	0.2	0.0	15.8
avg	0.0	0.2	0.0	17.0

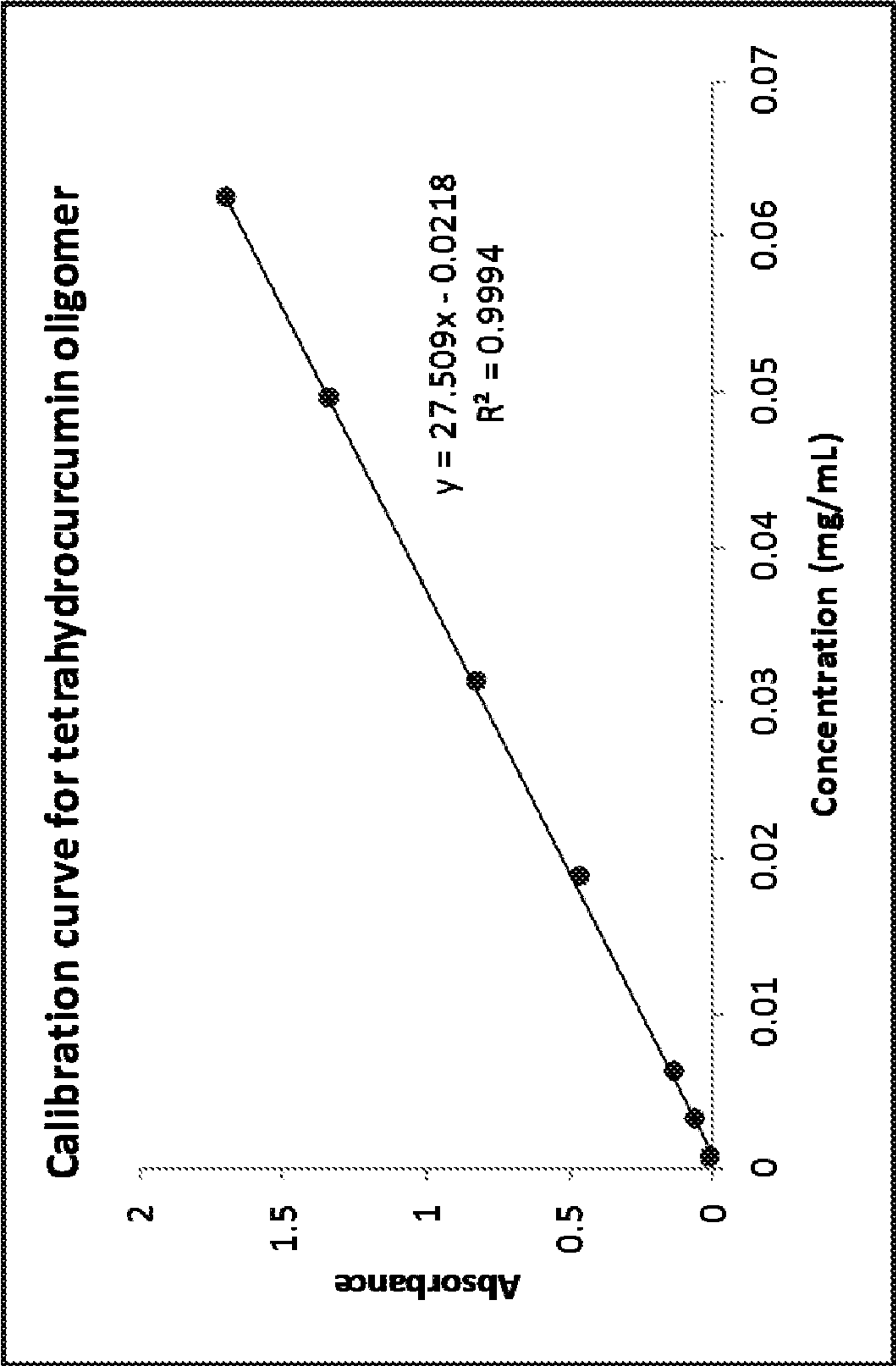
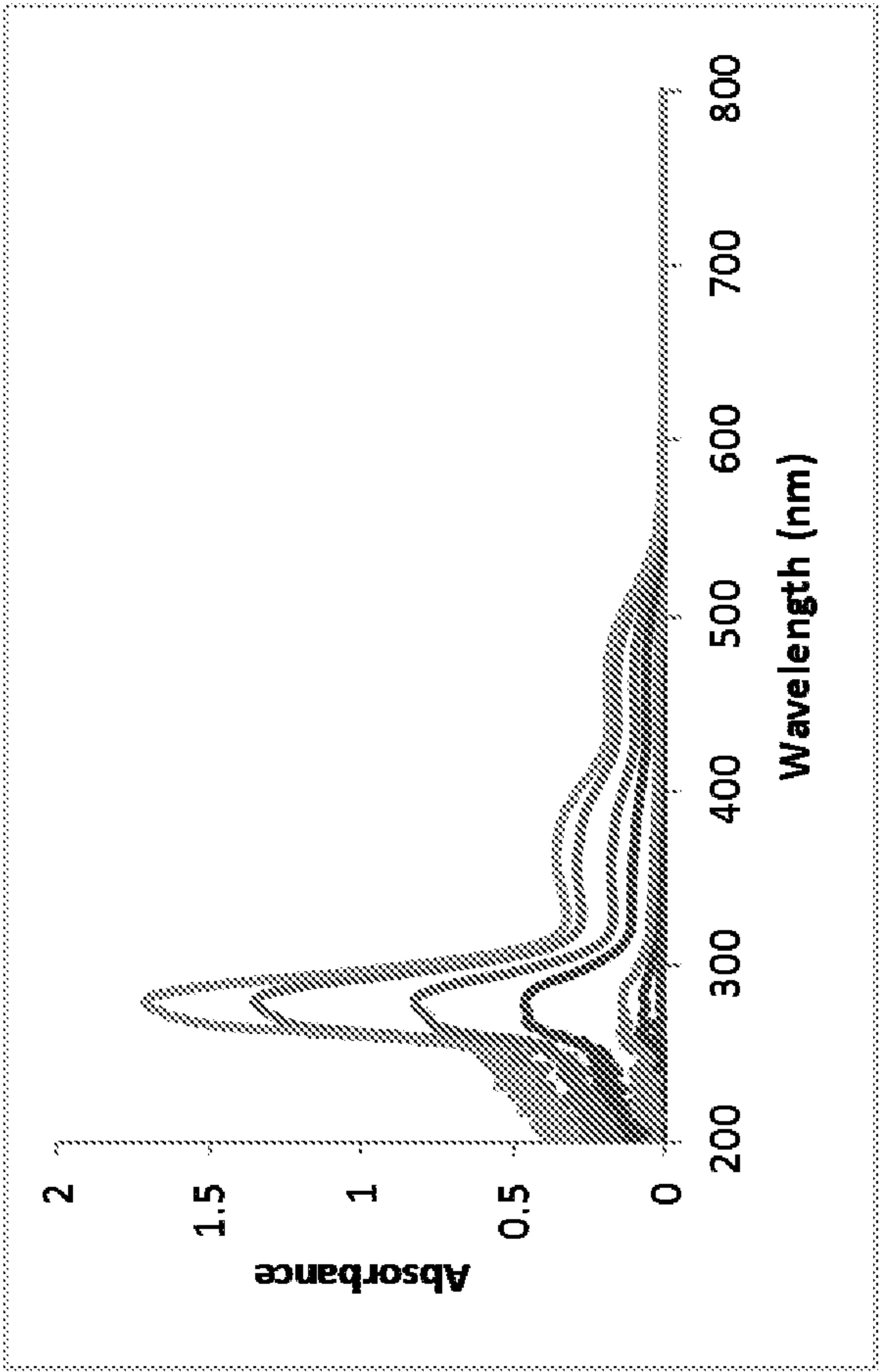


Figure 9



Entry	% leaching in:			
	H ₂ O	15% EtOH	3% AcOH	95% EtOH
1	0.2%	0.3%	0.2%	4.8%
2	0.3%	0.6%	0.2%	8.4%
3	0.4%	0.6%	0.3%	8.7%
avg	0.3%	0.5%	0.2%	7.3%

Leaching studies for O3 embedded PS film

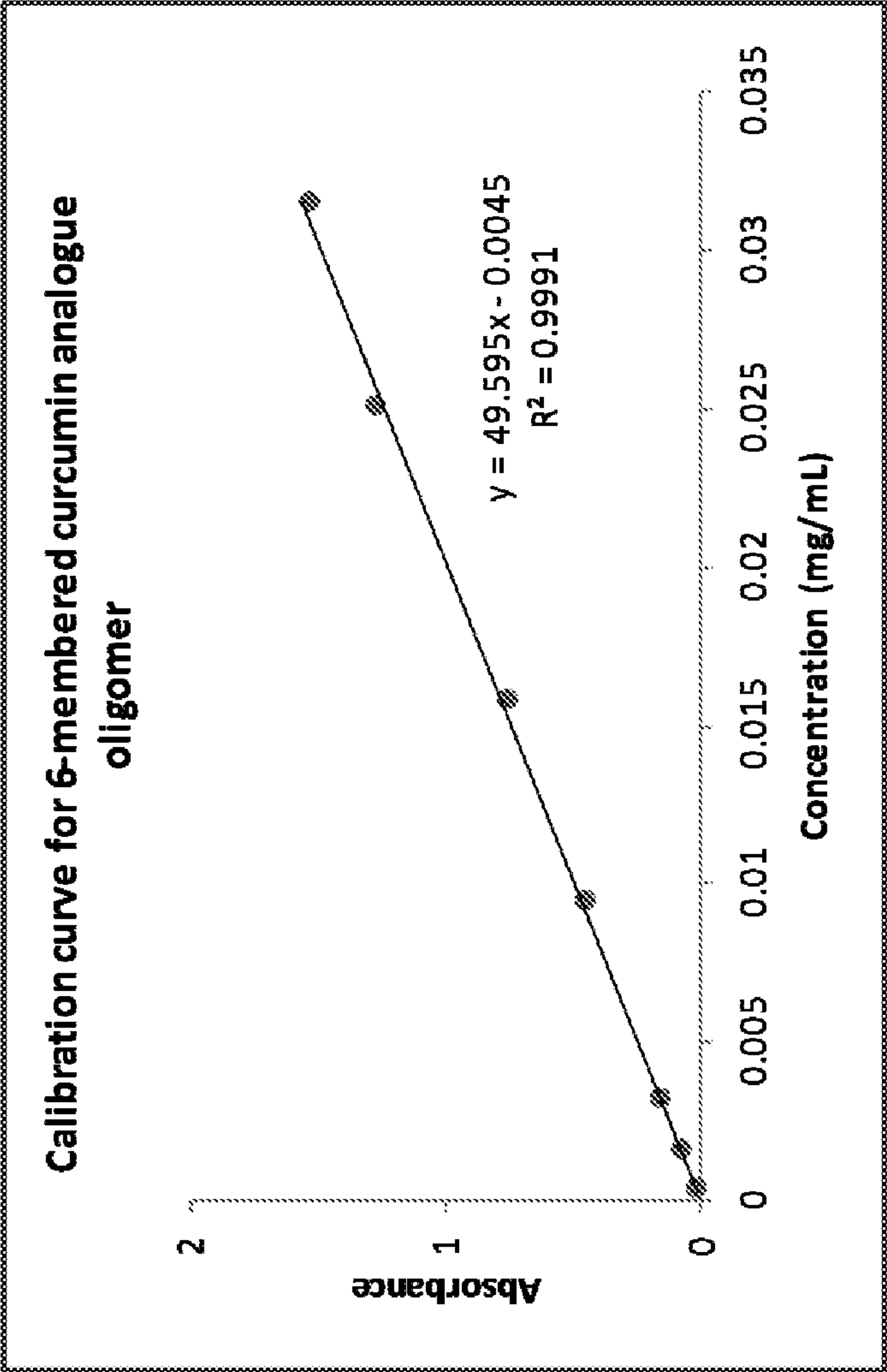
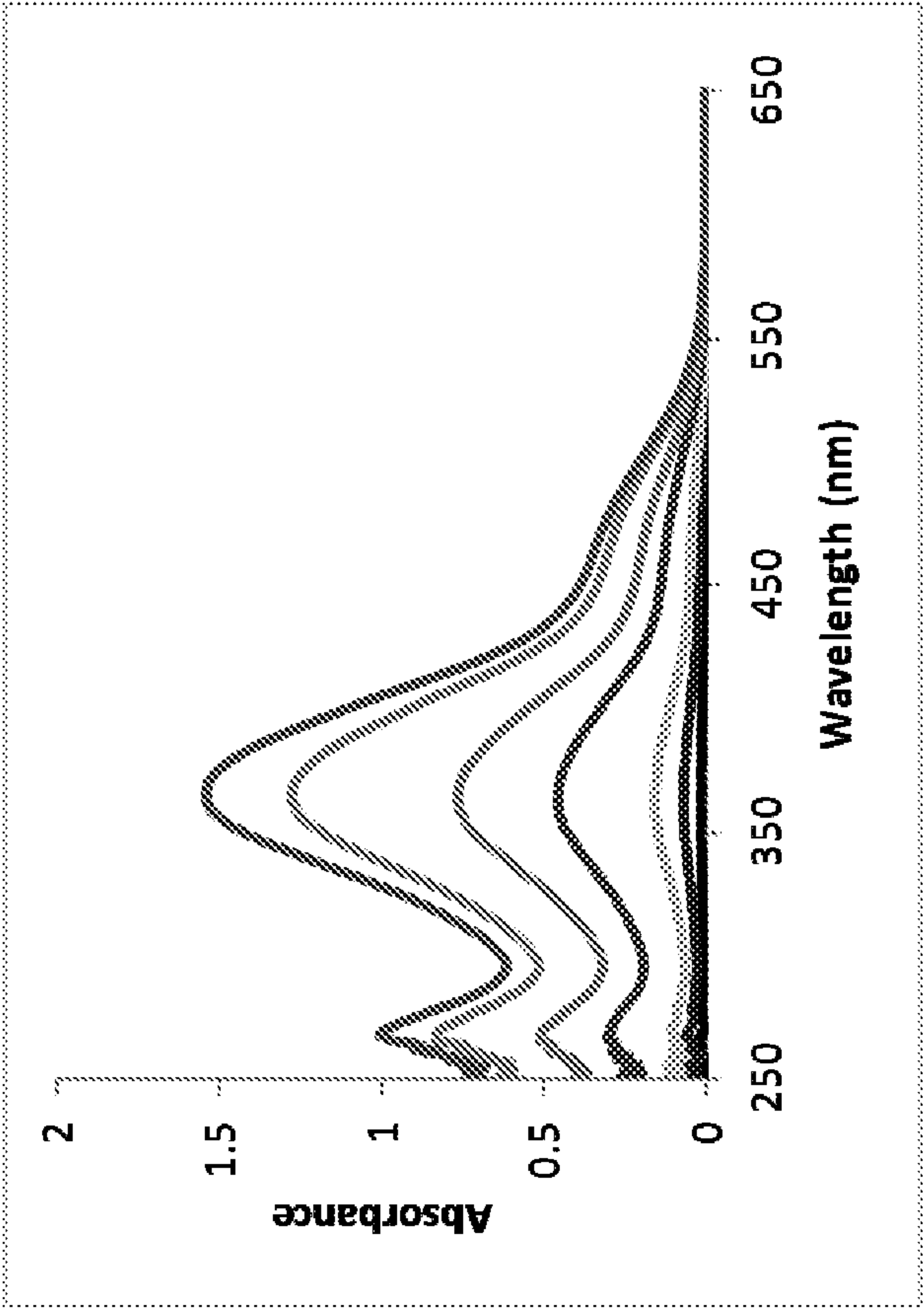


Figure 10



Entry	% leaching in:			
	H ₂ O	15% EtOH	3% AcOH	95% EtOH
1	0.0	0.1	0.0	10.6
2	0.0	0.2	0.0	10.8
3	0.0	0.2	0.0	12.7
avg	0.0	0.2	0.0	11.4

Leaching studies for O4 embedded PS film

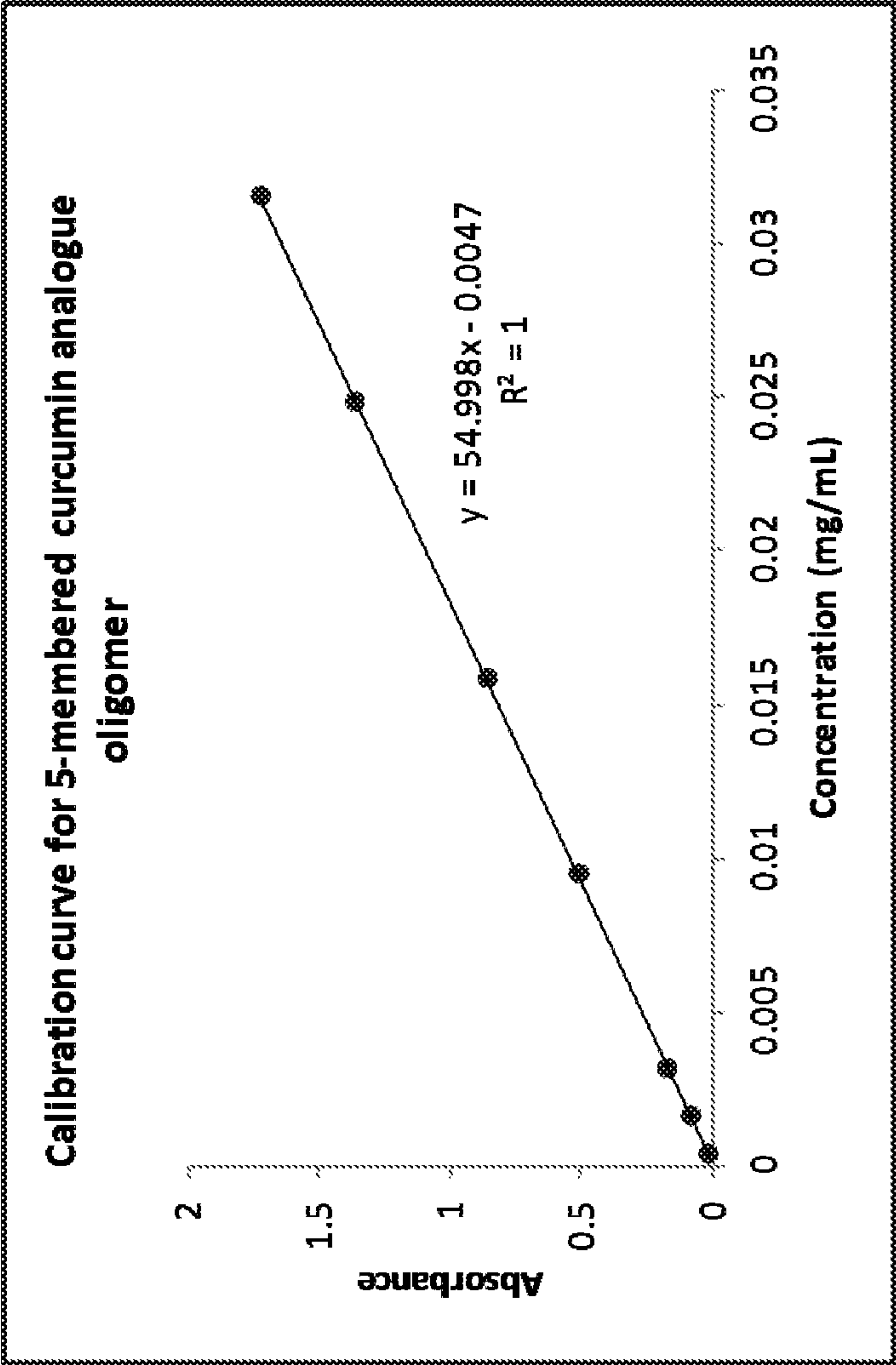
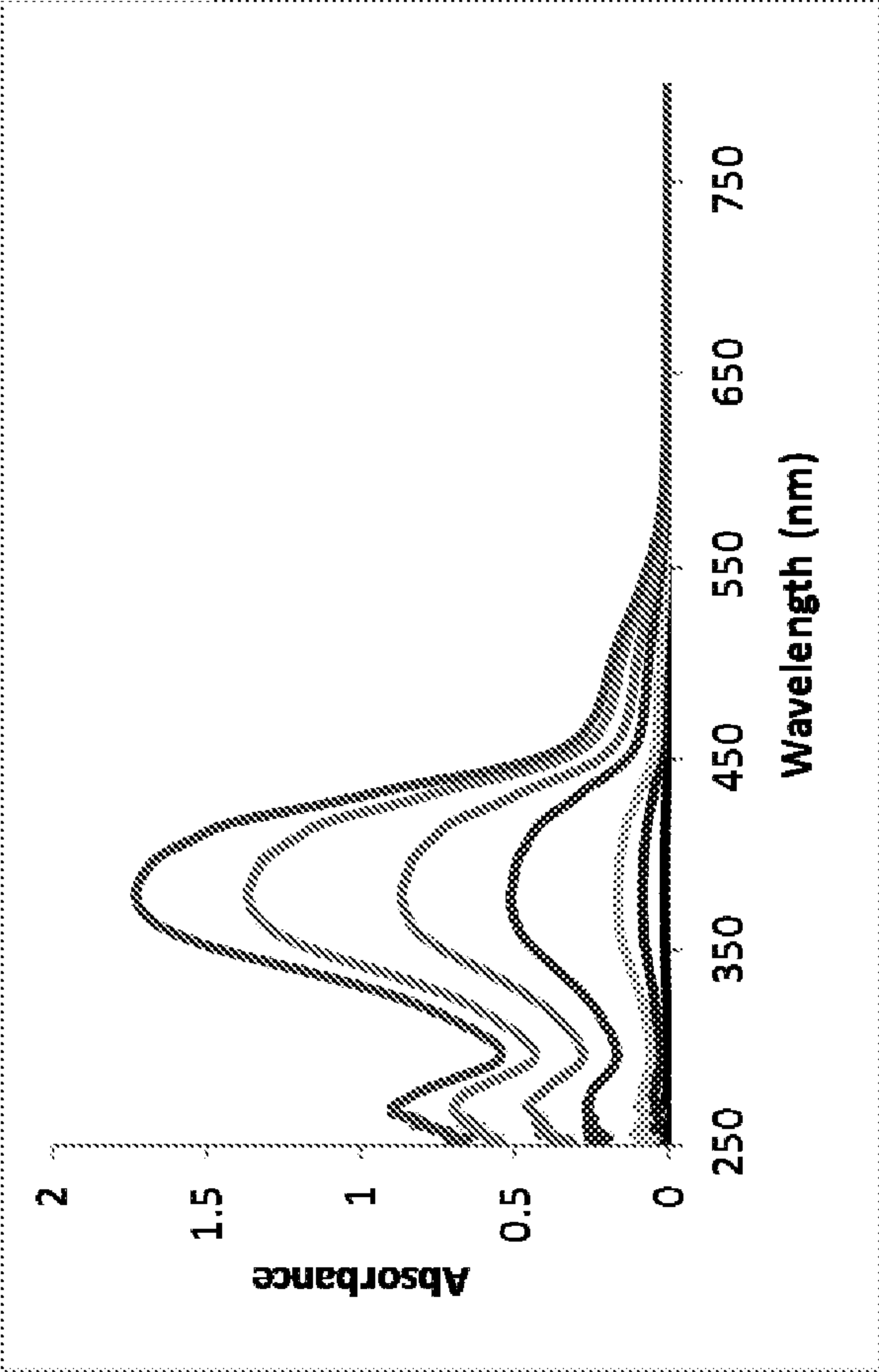


Figure 11



Entry	% leaching in:			
	H ₂ O	15% EtOH	3% AcOH	95% EtOH
1	0.0%	0.1%	0.0%	7.9%
2	0.0%	0.1%	0.0%	6.5%
3	0.0%	0.1%	0.0%	8.7%
avg	0.0%	0.1%	0.0%	7.7%